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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,262	08/21/2001	Oliver Kienzle	03850/010001	6459
22511	7590	12/16/2003	EXAMINER	
ROSENTHAL & OSHA L.L.P. 1221 MCKINNEY AVENUE SUITE 2800 HOUSTON, TX 77010			NGUYEN, KIET TUAN	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,262

Applicant(s)

KIENZLE ET AL.

Examiner

Kiet T. Nguyen

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 25-30 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 25-27 and 38 is/are rejected.
- 7) ☒ Claim(s) 4-8 and 28-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

The amendment filed on October 14, 2003 has been acknowledged. Claims 1-9, 25-30 and 38 have been considered in this office action.

Rejection Under 35 U.S.C. 102(a)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-3, 9, 25-27 and 38 are rejected under 35 U.S.C. 102(a) as being anticipated by Yahiro et al. (6,204,509).

Yahiro et al. (6,204,509) disclose, in figs. 1 (a)-12, a charged particle beam projection apparatus. The apparatus includes an electron source 1 for producing an electron beam 10a to image a pattern onto a substrate 11 having a radiation sensitive layer; a beam shaping device 10 for shaping the electron beam 10a; a mask 5, 5", 55 or 155 including a membrane layer 7 made of a first material such as a single silicon substrate (see col. 11, lines 14-17) for passing the electron beam (see col. 7, lines 30-36), scattering regions forming pattern regions (see fig. 1 (f)), a plurality of straightly parallel extending supporting struts 151 or 152, and marks 53 or 153 formed on or in the struts 151 or 152 and made of a second material such as heavy metal (see col. 8, lines 15-23); a deflector 4 for moving the shaped electron beam inside a plane between the parallel struts 151 (see fig. 1 (f)); reflecting electron detectors 25c or 25d (see figs. 10-12) which are backscattering electron detectors (see col. 15, lines 1-67) for measuring a number of electrons impinging on the marks 57d; and a deflector controller 17 receiving a signal generated by measuring the number of electrons of the detectors 25c or 25d from a master controller 16 for scanning the shaped electron beam (see col. 12, lines 1-31).

Claims 4-8 and 28-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for indicating allowable subject matter

The prior art fails to disclose a projection apparatus having a cross section of at least one auxiliary beam positioned in a mask plane at a predetermined constant distance relative to a cross section of a charged particle beam as recited in claims 4, 28 and 29.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Enichen et al. disclose measurement marks for E-beam projection mask.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner *Kiet T. Nguyen* whose telephone number is **(703) 308-4855**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(703) 308-0956**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 872-9318**.

K.T.N/Primary
12/1/03



KIET T. NGUYEN
PRIMARY EXAMINER